



**Third Session — Thirty-Second Legislature**  
of the  
**Legislative Assembly of Manitoba**

**STANDING COMMITTEE**  
on  
**PUBLIC UTILITIES**  
and  
**NATURAL RESOURCES**

33 Elizabeth II

*Chairman*  
*Mr. Phil Eyer*  
*Constituency of River East*



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**VOL. XXXII No. 7 - 10:00 a.m., TUESDAY, 26 JUNE, 1984.**

**MANITOBA LEGISLATIVE ASSEMBLY**  
**Thirty-Second Legislature**

**Members, Constituencies and Political Affiliation**

Name	Constituency	Party
<b>ADAM, Hon. A.R. (Pete)</b>	Ste. Rose	NDP
<b>ANSTETT, Hon. Andy</b>	Springfield	NDP
<b>ASHTON, Steve</b>	Thompson	NDP
<b>BANMAN, Robert (Bob)</b>	La Verendrye	PC
<b>BLAKE, David R. (Dave)</b>	Minnedosa	PC
<b>BROWN, Arnold</b>	Rhineland	PC
<b>BUCKLASCHUK, Hon. John M.</b>	Gimli	NDP
<b>CARROLL, Q.C., Henry N.</b>	Brandon West	IND
<b>CORRIN, Q.C., Brian</b>	Ellice	NDP
<b>COWAN, Hon. Jay</b>	Churchill	NDP
<b>DESJARDINS, Hon. Laurent</b>	St. Boniface	NDP
<b>DODICK, Doreen</b>	Riel	NDP
<b>DOERN, Russell</b>	Elmwood	IND
<b>DOLIN, Hon. Mary Beth</b>	Kildonan	NDP
<b>DOWNEY, James E.</b>	Arthur	PC
<b>DRIEDGER, Albert</b>	Emerson	PC
<b>ENNS, Harry</b>	Lakeside	PC
<b>EVANS, Hon. Leonard S.</b>	Brandon East	NDP
<b>EYLER, Phil</b>	River East	NDP
<b>FILMON, Gary</b>	Tuxedo	PC
<b>FOX, Peter</b>	Concordia	NDP
<b>GOURLAY, D.M. (Doug)</b>	Swan River	PC
<b>GRAHAM, Harry</b>	Virten	PC
<b>HAMMOND, Gerrie</b>	Kirkfield Park	PC
<b>HARAPIAK, Harry M.</b>	The Pas	NDP
<b>HARPER, Elijah</b>	Rupert's Island	NDP
<b>HEMPHILL, Hon. Maureen</b>	Logan	NDP
<b>HYDE, Lloyd</b>	Portage la Prairie	PC
<b>JOHNSTON, J. Frank</b>	Sturgeon Creek	PC
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<b>MACKLING, Q.C., Hon. Al</b>	St. James	NDP
<b>MALINOWSKI, Donald M.</b>	St. Johns	NDP
<b>MANNES, Clayton</b>	Morris	PC
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<b>NORDMAN, Rurik (Ric)</b>	Assiniboia	PC
<b>OLESON, Charlotte</b>	Gladstone	PC
<b>ORCHARD, Donald</b>	Pembina	PC
<b>PAWLEY, Q.C., Hon. Howard R.</b>	Selkirk	NDP
<b>PARASIUK, Hon. Wilson</b>	Transcona	NDP
<b>PENNER, Q.C., Hon. Roland</b>	Fort Rouge	NDP
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**LEGISLATIVE ASSEMBLY OF MANITOBA**  
**THE STANDING COMMITTEE ON PUBLIC UTILITIES AND NATURAL RESOURCES**

**Tuesday, 26 June, 1984**

**TIME — 10:00 a.m.**

**LOCATION — Winnipeg, Manitoba**

**CHAIRMAN — Mr. Phil Eyer (River East)**

**ATTENDANCE — QUORUM - 6**

Members of the Committee present:

Hon. Messrs. Cowan, Parasiuk and Schroeder

Messrs. Brown, Enns, Eyer, Fox, Harapiak,  
Malinowski, Manness and Ransom

**APPEARING:** Mr. J. Arnason, President and Chief  
Executive Officer, Manitoba Hydro

Mr. Marc Eliesen, Deputy Minister,  
Department of Energy and Mines

Hydro Staff: Mr. Paul Thompson

Mr. Art Derry

Mr. Bob Brennan

Mr. Charles Kang

**MATTERS UNDER DISCUSSION:** Annual Report  
of Manitoba Hydro-Electric Board for year ended  
March 31, 1983.

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**MR. CHAIRMAN:** Committee, come to order. We are considering the Annual Reports of the Manitoba Hydro-Electric Board and the Energy Authority.

Mr. Eliesen, do you have any follow-up from last night?

**MR. M. ELIESEN:** Yes, Mr. Chairman. We have put together a lot of material now, and we are prepared to proceed to present that material to you, in addition to that which we've already circulated. But the material that we have this morning relates specifically to the questions that were raised by members of the committee on last Thursday evening as well as last night.

What I propose, if it's agreeable to present that material, first by Mr. Derry and then Mr. Brennan of Manitoba Hydro, and then I have some additional material to follow up in response to some other questions. Then, of course, we can attempt to answer any additional questions that arise out of this material or any new areas that committee members would like to ask.

**MR. CHAIRMAN:** Proceed.

**MR. M. ELIESEN:** If I could ask Mr. Derry to start that presentation.

**MR. CHAIRMAN:** Mr. Derry.

**MR. A. DERRY:** Mr. Chairman, at the end of yesterday's meeting, I distributed information on the Limestone

plant costs. At this time, I would like to discuss how a cash flow in 1980 dollars is projected to obtain the \$2.8 billion 1991 in-service costs and the 1992 \$3 billion costs. We'll start with the 1992.

At the meeting on Thursday night, we mentioned a cash flow of \$1 billion. If you look at the overhead here, under the base, you'll see a total of \$913 million in 1980 dollars. We had said the cash flow was around \$1 billion in 1982 dollars.

Now what we have to add to that cash flow is the escalation during the period that the plant is being constructed, plus interest during construction. I won't go through all the numbers, but you can see that under the base we have a total cash flow of \$833 million. Added to it are costs to date, because the plant had been started. These costs are accumulating with interest and that is around \$80 million, so we come out to a total of \$913 million.

Escalation during the period is estimated to be about \$1 billion, and interest \$947 million, plus the 67 for a total of a billion as well. When all these are added up, they come out to \$2.99 billion or \$3 billion. That's how we arrived at that figure.

Now if we go to the 1991 service date, we have the same cash flow except for one year of housekeeping which doesn't show on there - it was on the 1992 date - which brings the total to 912 now, rather than the 913. If you look at your pages, these are on there.

The escalation is now 970 instead of 1 billion; interest, 851; interest costs for what's there already, 67, for a total of 919. When we add all these up, we come to \$2.8 billion. This is how we arrived at the 2.8.

If there are no further questions, I'll go on to the sensitivity.

**MR. CHAIRMAN:** Mr. Manness.

**MR. C. MANNES:** Just one question - it's a short one - the interest assumption on those charts were at what level?

**MR. A. DERRY:** Could you repeat that please?

**MR. C. MANNES:** What was the interest assumption used through that schedule? Was that 11 percent?

**MR. A. DERRY:** At the bottom it says 1983 05 10 interest and escalation rates, and they were 10 percent interest and 7 percent escalation.

**MR. C. MANNES:** Thank you.

**MR. A. DERRY:** Mr. Chairman, before I get into discussing the information on this next paper - we can distribute those folders . . .

**MR. CHAIRMAN:** Mr. Filmon.

**MR. G. FILMON:** Mr. Chairman, I just wanted to clarify. In the past, the argument has been made by some -

I'm not sure if any are around this table - that you were better off to construct early because you saved, in terms of the escalation of your costs of construction. But clearly the utility is projecting interest at least 3 percentage points higher than the rate of escalation, so you're always further ahead by delaying construction, because your interest costs are greater than the escalating costs of construction.

Is that what Mr. Derry is saying by that?

**MR. A. DERRY:** What these overheads have shown is that the cost to put the plan in service is more with the 1992 date than it is with the 1991 in in-service dollars. Now if you take the cash flows that that base column and present value - that column at an effective interest rate or at a real interest rate - you'll find at the present valuing those and accumulating the numbers that it costs you to advance. In other words, the 1991 cash flow present valued is higher than the 1992 cash flow. So you are right, it costs us to advance.

However there's more to the story than just present valuing the capital costs. You have put a plant in a year early. You have 6,900 gigawatt hours of energy that can be sold, so there is a revenue that you have to take into effect as well.

I'd like to proceed with the other and I'll get back to this. Has everybody got the copies? - okay. Before I get into discussing the information just handed out, I'd like to make the following points.

When we are comparing sequences to attain the cost of the sale, the numbers I'll be stating are the results of the economic studies, not the financial analysis. The technique that we use are standard electric utility project evaluation techniques, utilized by many utilities. They are not expressed in current dollars, but are expressed in a common year's dollars. In the case in hand we have chosen 1984. Later Mr. Brennan will present the implications of the sale as a reflex on the required revenue requirements for the Manitoba consumer.

I will now discuss the very sensitivity cases that were considered. The first overhead that we have is the sensitivity to exchange rates. We have put down on this overhead the revenues as received in billions of dollars and the 1984 millions of dollars. Our initial assumption, in all of our studies, we used the Canadian dollar equal to .825 U.S. It resulted in \$3.19 billion, as-received dollars, or \$707 million, 1984. If we change that exchange rate to \$1 Canadian to .77 U.S. and it's a little lower than that right today, we end up, the as-received dollars at 3.42 and the \$84 dollars, \$758 million.

If we go to the other end and increase the 82.5 to .9, the as-received dollars are \$2.93 billion and the 1984 dollars, \$648 million.

The next sensitivity we looked at was the low growth rate, and under the low condition we're projecting about 2 percent. With a 2 percent growth, looking at the sequence analysis again, under the base sequence, Limestone would be required in 1996; under the sale sequence, 1992, for a four-year advancement.

**MR. G. FILMON:** Mr. Chairman, is that the lowest rate of load growth that was considered in the sensitivity analysis?

**MR. A. DERRY:** That is the lowest growth rate we considered. It is Manitoba Hydro's low projection.

**MR. G. FILMON:** Mr. Chairman, I just wanted to point out that if you were to take, from the figures that you have given us, the period of 1977 to 1983 and leave out the year that Island Falls reverted to the Saskatchewan Power Corporation, if you're to take that period of one, two, three, four, five, six, leaving out the seventh year of 1982, your load growth has been at 1.2 percent over that period of time, so it's substantially less than what you project to be your low growth.

**MR. CHAIRMAN:** Mr. Parasiuk.

**HON. W. PARASIUK:** Yes, I'm wondering - I believe that there has been some updating on load growth projections . . .

**MR. M. ELIESEN:** Mr. Chairman, we have some information that's recently been put out by the federal Department of Energy, Mines and Resources, which have compared the load growth forecasts for the next 20 years by utilities across the country, and I can provide some general figures. This is for the period estimated from 1983 to 2000 and the annual increases are: the Atlantic provinces, 2.52 percent increase; Quebec, 4.18 percent increase; Ontario, 4.25 percent increase; Manitoba, 2.8 percent increase; Saskatchewan, 4.25 percent increase; Alberta, 5.17 percent increase; B.C., 4.7 percent increase, and the Canadian average is about 4.05 percent.

Now these projections by the federal Department of Energy, Mines and Resources are all based on a lower oil price case, which is comparable to the low kind of load forecasts that utilities project into the future.

**MR. G. FILMON:** Are those all for domestic growth or is that including any export of energy?

**MR. M. ELIESEN:** That is all for domestic considerations.

**MR. G. FILMON:** Mr. Chairman, I think the figure for this current year, 1984 and ending March 31, 1984, indicated an increase of eight-point-something percent. In any case, I'm aware that this year there's been a dramatic jump again in load growth. It was indicated that this was a return to strength of the mining operations in the North and a few other industrial gains. Is there anything else unusual that occurred during that year that would have contributed towards an inordinately high load growth?

**MR. CHAIRMAN:** Mr. Arnason.

**MR. J. ARNASON:** The other only factor is weather. In other words, the weather had the effect on the increase to 8.5 percent, compared to the previous year.

**MR. G. FILMON:** When was it that the utility entered into an agreement with Trans-Canada Pipeline and how much will that affect the additional load for the . . . (inaudible) . . .

**MR. J. ARNASON:** The utility is reviewing with Trans-Canada Pipeline currently, the possibility of three new installations in Manitoba. Trans-Canada Pipeline has

asked for a possible in-service date of 1987. We have indicated to them that we could put those stations in service to meet that date, if they give us the go ahead immediately.

**MR. G. FILMON:** How much would that contribute in terms of load-growth requirement?

**MR. J. ARNASON:** Each installation is 24 megawatts, some 200 million kilowatt hours per year, a total of 600 million kilowatt hours for the three installations. Those numbers have been included in the most recent forecast that Manitoba Hydro has made.

**MR. A. DERRY:** Continuing with the overhead, for the 2 percent low-load growth case, we indicate a four-year advancement of Limestone. As you can see, there is only one plant required to make the sale under the low load growth case, and that's Limestone.

Now if we look at the high growth case which is 4 percent - the projection is 4 percent for the high growth - here are the plant requirements: under the base case, Limestone, 1990; under the sale case, Limestone, 1990 - in other words, we need it by 1990 in either case - Wuskwatim, 1994; with the sale case, 1992 - it's moved ahead two years, advanced two years; Conawapa, 1996, 1994, advance two years; First Rapids, 2003, 1999, advance four years; Manasan, 2004, sale 2000, advance four years; Gillam Island, 2005, sale case, 2002, advance three years.

The next overhead will show the sensitivity to these growth rates. These values are all discounted to 1984 under millions of dollars. Under the forecast load growth rate - these are the numbers you've seen before - 707 revenues; costs, 321; profits, 386; profit as a percent of revenue, 55 percent.

If we look at the low load growth case, you'll see we have an improvement: revenues, 707, yet they haven't changed; costs, 253; profits, 454; profit as a percent of revenue, 64 percent. Under the high load growth case: revenues, 707; costs, 418; profits, 289; profit as a percent of revenue, 41 percent.

The next overhead, we considered various . . .

**MR. G. FILMON:** Mr. Chairman, what Mr. Derry is telling us is the greater the advancement, the less the benefits from NSP?

**MR. A. DERRY:** The higher load growth requires more plants, then less the benefits.

**MR. G. FILMON:** Okay, so the higher load growth gives you less benefits.

**MR. A. DERRY:** That's right.

**MR. G. FILMON:** But the lower load growth gives you greater benefits and that's because you attribute no portion of the capital cost of those plants to the NSP sale?

**MR. A. DERRY:** As I stated before, this is a difference in a sequence development. If there are costs involved in advancement of capital - and there are in every one of these cases - it has been considered.

**MR. G. FILMON:** But I repeat that there is no portion of the capital costs of any of those plants that's attributable to the NSP sale, in your assumptions?

**MR. CHAIRMAN:** Mr. Thompson.

**MR. P. THOMPSON:** What we're saying is that if we have higher load growth, our costs will rise. In that case, the revenue does not change, because the revenue is not affected by our load growth. So you're right, the profits go down. As indicated, in the high load growth we only have 289, and in the forecast we had 386.

**MR. G. FILMON:** Is anybody able to answer the question that I asked, and that is that you are not attributing any portion of your capital costs, either in plant, transmission facilities or whatever, to the sale to NSP?

**MR. M. ELIESEN:** Yes, Mr. Chairman, you can see, even in the low load growth forecast. There are costs attributable of \$253 million that have been discounted to 1984, and that's under the 2 percent load growth. So those are costs that are attributable as a result of making that sale.

**HON. W. PARASIUK:** I believe that there is information on costs and revenues in relation to the point that Mr. Filmon raised, the one Mr. Derry . . . and the facts he presented.

**MR. G. FILMON:** Mr. Chairman, the costs that are referred to as costs 253, 321, 418 are the interest costs of advancement of the plant, but they're not the capital costs of apportioning any one of those actual plants to the sale to Northern States Power?

**MR. M. ELIESEN:** Mr. Chairman, as I believe we presented last Thursday night, three components of costs attributable to this sale: costs of advancing the facilities which are capital costs, costs related to operational maintenance, and costs related to reduction in revenue from surplus sales. Those are the three main cost factors that are attributable to making this sale.

**MR. G. FILMON:** What's the capital cost attributable to the sale under any circumstances of providing 500 megawatts firm or I think it's 3,300 gigawatt hours firm energy per year? What's the capital cost attributable to the NSP sale for providing that?

**MR. M. ELIESEN:** Mr. Chairman, we're about to get into a presentation of the capital cost picture. Maybe we can come back to that question because we'll address part of that answer in the material that is now about to be presented.

**MR. A. DERRY:** The next overhead is comparison sensitivity to interest and escalation rates, and we've taken three different rates here. The 11 and 7 in the middle are the ones that were used in the analysis to come out with a 707, the 321, and 386, or profit as a percent of revenues of 55 percent. If we take a lower interest and escalation rate of 8 percent and 5 percent,

you can see now the revenues are changing because the contract has in it the effects of interest and escalation through the sale period of the U.S. costs. We now end up with revenues of \$785 million, our costs are 312, the profit is 473, for a profit as a percent of revenues of 60 percent.

We go to higher rates and look at a 14 percent interest rate, and a 9 percent escalation, revenues, of course, drop - in this case 695 - costs are increased to 336 and the profit is 359, but still 52 percent profit is a percent of revenues.

You can see in this case, because we have tied the contract to the U.S. interest and escalation rates through the contract period, the revenues also change along with our costs. So we are staying fairly constant with that between 60 and 52 percent ratio.

**MR. C. MANNES:** Only one small question. I notice the spread has increased. There appears to be some fixed factor, 3 percent at the lower rate to 5 percent, between escalation and interest. I could understand possibly the reason for that, but were there to - for some reason - be only a 3 percent spread between interest and inflation, would the net result of profit then move out of that 50 to 60 percent range?

**MR. A. DERRY:** Are you suggesting that we keep a 3 percent spread, like 11 and 8 percent?

**MR. C. MANNES:** Well, I am not suggesting it. I am wondering whether in fact what number a 14 and 11 - 14 interest, 11 inflation - would that bring the result in profit? Would that change that significantly? Would it move it away from that, what appears to be a 50 to 60 percent? It was in that range of percent of revenues. Has that been tested?

**MR. P. THOMPSON:** What we have here are three cases: one with a 3 percent differential, one with a 4 percent differential, and one with a 5 percent differential between interest and escalation. We chose to do that to cover the range that we thought was a reasonable differential. Had we kept them all, at say 3 percent, we don't have the numbers, but I suspect that the result would have been the same as you get for the one of 3 percent of 60 percent.

**MR. C. MANNES:** I don't argue with what you have done. I guess I argue with the conclusion you just throw at me. Had you done a 14 and 11, for instance, I am just curious what that may have resulted in, as far as figures.

**MR. P. THOMPSON:** As I have indicated, we don't have that here, so I can't really give you any answer to that right now. We could do it, I suppose.

**MR. CHAIRMAN:** Any further questions on this particular part?

Mr. Derry.

**MR. A. DERRY:** I have another overhead on capital costs. This overhead projects the capacity costs for the 500 megawatts, based on Sherco's cost and Limestone's cost. If we look at Sherco and express

this in 1993 millions of dollars, 500 megawatts based on Sherco's capital costs, would come out to \$1,126 million. At their carrying costs of 16.85 percent, this is equivalent to \$190 million per year.

Expressing Limestone 1991 costs, which is the cost of Limestone if built in 1991, it comes out for 550 megawatts, increasing the 500 by 10 percent to take in losses, it would come out to \$1,220 million, times our interest and depreciation rate, or \$153 million per year.

I would like to go back now to the \$1,126, how that has been derived. If we take the \$1,294 per kilowatt, which you have seen in the agreement - that is in U.S. dollars, in 1988 dollars - if we put that into Canadian dollars at 82.5 cents, the 1,294 becomes \$1,568 per kilowatt. Now escalating the \$1,568 per kilowatt, by 5 years to 1993 when the contract begins at 7.5 percent per year, this results in a cost of \$2,252 per kilowatt Canadian for Sherco.

Now going to Limestone where we have the \$1,220, the Limestone 1991 in-service cost is \$2.8 billion. As indicated earlier, it comes out to \$2,188 per kilowatt for 1,280 megawatts. Assuming about 10 percent for losses to the U.S. border, it results in \$2,440 per kilowatt.

So we have two numbers now; 2,252 for Sherco, 2,440 for Limestone. If we look at Sherco's costs as a percent of Limestone, it's 92 percent, not 50 percent. As you can see, if we look at the total dollar carrying charges per year, based on the U.S. rates, it is \$190 million per year for Sherco, and \$153 million for Limestone.

**MR. G. FILMON:** Why was Sherco accelerated to 1993 dollars and Limestone given in 1991 dollars?

**MR. A. DERRY:** That is the dollars that they will be paying us in 1993. Limestone is built over the period 1991-93, so really when I said 1991 dollars, it could be from 1991 to 1993 dollars.

**MR. G. FILMON:** So there is no difference between 1991 and 1993 dollars?

**MR. A. DERRY:** If you look back at the cash flow, you will find it's \$2.8 billion and there are expenditures in 1992 of \$230 million and \$87 million in 1994, so it's being put in over that period. These are the as-spent dollars - as-spent dollars, if you want, from 1983 to 1994.

**MR. G. FILMON:** So the 2.8 billion is in as-spent dollars and it's grossed up to be 1993 dollars, is it?

**MR. A. DERRY:** It's the total as-spent dollars for 1991 in-service, the first units.

**MR. G. FILMON:** What I am trying to do is find out whether it's on exactly the same base line as Mr. Derry has given us for Sherco 3, which he has presumably grossed up to 1993 dollars. Why wouldn't you do the same thing with the Limestone to make it an apples-to-apples comparison?

**MR. P. THOMPSON:** The reason that Sherco was escalated to 1993 is because that is what the contract

says will happen. There are five years escalation from 1988 to the start of the contract in 1993. The reason that Limestone was taken as 1991 is because that is the year that it is required to make the sale.

**MR. G. FILMON:** If the purpose of producing this analysis is to show the comparison between cost per installed kilowatt of one versus the other, shouldn't they be on the same base line dollars? I realize that the purpose of the calculations in terms of revenue and cost may be different, but it seemed as though somebody was trying to make a point about the comparative cost of installed capacity coal versus hydro, and if we're going to they should be in the same base line dollars, that's all I'm saying.

**MR. M. ELIESEN:** Mr. Chairman, we believe they are on the same base line dollars. The reason why 1993 is chosen as the base line year, because that's the year in which the sale commences until 2005 and, because Sherco 3 comes into operation in 1988, it is escalated in accordance with the contract to 1993 to provide that kind of comparison; 1993 is the year in which that sale starts. What is being attempted here is to reflect and show the difference in capital costs between the Sherco plant at that time because that's the time in which we start to receive revenue, that's the time that the sale commences in comparison with the Limestone plant at that particular time.

**HON. W. PARASIUK:** Aren't there expenditures in that projection for 1992 and for 1993? They're built right into the projection that has been received by the people. It's not as if the dam finishes being constructed in 1991, there's the first generator comes on stream. Those costs are built in for 1992 and the costs are built in for 1993.

**MR. G. FILMON:** Does that include the capitalization of all the interest and carrying charges along the way into 1993 dollars?

**MR. M. ELIESEN:** Yes, Mr. Chairman.

**MR. CHAIRMAN:** Any further questions?  
Mr. Derry.

**MR. A. DERRY:** The next overhead is a comparison of the average energy costs from 1993 dollars between Sherco and Limestone. We worked Sherco out, the O and M cost of Sherco plus the fuel comes to 36 mills per kilowatt hour; and Limestone, the O and M cost, just the O and M comes to 2 mills. So we have a ratio of somewhere between 15 and 18 to 1 in operating costs of Limestone versus Sherco.

**MR. C. MANNES:** Just a question. These were the basic assumptions used. These figures, are they plugged into any of the formulas anywhere or are they just a basic assumption of relative operating costs for 1993?

**MR. M. ELIESEN:** Mr. Chairman, I believe we circulated on Thursday evening the assumptions that were being used with regard and this reflects the coal costs that are included in them. We can get additional copies if you don't have them from Thursday night.

**MR. C. MANNES:** I guess my question was what does this provide that the assumptions table that you passed around Thursday night didn't? What in the area of sensitivity, and I think that was the reasoning for these sheets, what is being conveyed here?

**MR. M. ELIESEN:** Mr. Chairman, I'm not sure I'm following the exact question. What we've attempted to show this morning with regard to these specific questions asked on Thursday night is the kind of sensitivity analysis that has been undertaken on a number of the crucial factors which relate on both the revenues and costs of the sale. What we've looked at includes areas such as the load growth, areas such as interest rates, areas such as exchange rates. The coal prices, which is an area subject to question in the future - I believe on Thursday night I provided the background on the kind of increases that have been taking place in the 10 years leading up to the current period which was something like 14-odd percent increase on an annual basis. I'd indicated that notwithstanding the extremely high real increases, Inco prices that had taken place, we have assumed a very conservative assumption of the kind of coal price escalation that would take place during the sale period, that is, 1993 to 2005. I think it's 5.9 percent.

**MR. C. MANNES:** Well, Mr. Chairman, Mr. Eliesen is quite correct in his recollection of events on Thursday night. I suppose my question was what would be the results of the analysis if, for instance, coal fell out of favour completely as a source of power for the American consuming public? What happened if there were no increases in the cost of coal beginning in the decade of the '90s, and what would that show by way of results through the . . . ?

**MR. M. ELIESEN:** Well, in my opening remarks on Thursday night, I made reference to the general environment that currently exists and what people are forecasting for the future in the areas adjacent to Manitoba, the areas where we have our customers and further potential customers. I indicated in the context of alternative forms of generation, there was very little capacity for hydraulic development, and that the other form of generation, nuclear, was either subject to moratoriums in these areas or alternatively the economic costs associated with nuclear plus the long-term planning horizon of 12 years and 15 years in order to get a nuclear plant on stream had discouraged utilities to the south of us from even considering that form of generation. Therefore, the only alternative form of generation in these markets was basically coal-generated plants.

In that context, what is taking place recently over the last three or four years is increasing concern with environmental factors, particularly related to acid rain, that as a result the coal-generated plants now, for the first time any new ones, require pretty expensive and pretty sophisticated pollution equipment which has increased enormously the total capital cost requirements for a coal-generating plant. That is with regard to any additional generation or even replacement of existing generation that these utilities may be considering.

We believe that there is no other alternative in these markets adjacent to us. Now, presumably on the coal area, we could have assumed lower increases or even significantly higher increases given the historical record, we felt the kind of increases that we've projected are reasonable, and, in fact are pretty conservative.

If you want to bring them down considerably, that is coal prices, although we see no reason why that should take place, given that the Manfor coal and given the fact that coal generation remains the No. 1 alternative for most of these areas, particularly adjacent to us, then presumably some of our benefits would decrease. Right now we've indicated that on the O and M, for example, that it was about 15 or up to 18 times higher than that would be considered here in Manitoba.

**MR. C. MANNES:** Well, Mr. Chairman, I don't argue with any of the subjective qualifications that Mr. Eliesen has just offered. This happens to be the point in time in which we're trying to forecast forward. But to me, I've been very interested in knowing, because certainly 10 years ago we could never have projected - we never would have projected the cost of a barrel of oil heading upwards over \$30 a barrel either. I'm therefore questioning what would happen, let's say given in 1987 or 1988 that the price of coal stabilized or even began to drop for whatever reason. To me, the chances of that occurring may be very small, but surely we have an obligation to at least look at that, put it through the formula, without any subjective comment. I mean it's just going to lead to another answer, but at least we'll know what that answer would be, given that certain set of circumstances.

Obviously this must have been done and I think when I made the request for a specific sensitivity request, I think I was asking Hydro to look outside of the parameters of purely strong subjective argument, based on today's understanding of the situation and the future.

**MR. M. ELIESEN:** Mr. Chairman, I'll just point out that the rate of increase that we've chosen is in fact a real decrease of 1.1 percent, from what is currently being experienced. My general observation is that the overall coal situation, what is projected now in the States - not only in the States because we're not selling throughout the United States - we're looking specifically at pretty close markets adjacent to us, where our customers, and we believe that the kind of assumptions we've used are more than realistic and very pragmatic and very conservative. We can do some additional runs on the coal area and provide that background information to you, similar to what has been done on exchange rates and interest rates and load growth forecasts.

**MR. C. MANNES:** Fine. My final comment in that regard is, yes I looked at the parameters that you've used for interest rates. To me that takes a wide scope and I would request that that be done in other areas, because experience has taught us that even though today there seems to be an orderly trend of increase, looking in any area of growth other than population I dare say, that there could be wide fluctuations for whatever reasons. I would just hope that Manitoba Hydro would take that into account. Then after they've

seen the numbers, then they'd have to again fall back to, I guess, the logical assumptions under today's factors.

**MR. G. FILMON:** Following up on the questions from the Member for Morris, what is the prospect of them being able to obtain less expensive sources of coal? As a for instance, part of the information that I believe Mr. Eliesen gave was that the Alberta coal, for instance, is about half as costly as the coal being used in Minnesota. I realize it's a different grade but what are the prospects of them being able to utilize less expensive sources of coal in the future?

**MR. A. DERRY:** In the case of Alberta, we're talking about a mine-mouth plant. In the case of Sherco, we're talking about a plant that's located miles away from the mines, so there's rail costs in it.

**MR. G. FILMON:** And that handling and transportation doubles the cost, does it then?

**MR. A. DERRY:** Just about doubles it, yes.

**MR. G. FILMON:** I'm not attempting to prejudge the order in which the material is presented, but are we going to eventually get to the analysis of what capital costs are included in the sale, Mr. Chairman?

**MR. M. ELIESEN:** If you bear with us just a few more minutes, we'll just present this material and then we'll get directly into that subject matter.

**MR. A. DERRY:** Mr. Chairman, before Mr. Brennan presents his information, Mr. Filmon has suggested that a one-year additional advancement, from 1992 to 1991, costs some \$300 million. I expect his analysis is a financial-type calculation, which only considers the carrying charges of one year at the plant.

At this time, I'd like to inform you that Manitoba Hydro has studied advancement of this nature, without the NSP sale, and the economic studies have indicated advancement to be economically beneficial. What is involved here is the advancement of cash expenditures, those expenditures that I previously distributed, for 1991 and 1992 in service date. When these expenditures, the cash flow column, are discounted at a real interest rate to a common base, one will find the cost of advancement - there is a cost all right. However this is not the whole story. By advancing one year, there's an additional 6,900 gigawatt hours of energy available to sell on the export market, and even at interruptible rates, there are sufficient revenues generated to result in the conclusion that advancement is economically beneficial.

If one were to consider the financial evaluation, just as Mr. Filmon indicated, there would be a cost in the first year. However what he has neglected was the revenue from the additional export sales possible with the advancement. When everything is considered in the financial analysis, one will generally find a one or two year of increased cost, as a plant comes in service and then lower costs from then on - as the plant is on the books at a lower total overall cost, \$2.8 billion versus \$3 billion.



Mr. Chairman, I think we are now at a point where Mr. Brennan should present the financial implications of the sale on the Manitoba consumer.

**MR. CHAIRMAN:** Mr. Brennan.

**MR. B. BRENNAN:** The results of our financial analysis indicates the effect on future annual revenue requirements, as they are projected to be reflected in Manitoba Hydro's accounting records.

We have compared two scenarios, using the corporate assumptions that Mr. Fraser referred to earlier. The two projections are financial projection without the NSP sale and one with the sale. Our financial analysis indicates the same general results of the economic studies. I have three transparencies to review with you that indicate that.

This graph shows the decreased annual revenue requirements from general consumers with the NSP sale, as compared to no sale.

As you can see, above the green line is decreased revenue requirements from consumers within the province. Below the green line indicates increased revenue requirements from consumers within the province. You can see that there is an increased revenue requirement in 1992-93, and that's due to the advancement of Limestone from a first power in service date of November, 1992, to November, 1991.

A similar effect is indicated between the years 2000 and 2002, due to the advancement of Conawapa to 1998. However, by this time the cumulative benefits more than offset the increased requirement as shown in the next graph.

Some significant financial benefits of a relatively short-term sale similar to NSP are evident in this type of financial analysis. First, it allows Manitoba Hydro to sell some of the surpluses we are projecting to have once we add a large plant of 6,900 gigawatt hours, when our load at that time is projected to be growing at less than 500 gigawatt hours a year. This surplus power will be sold on a firm basis and, therefore, have a capacity charge built into the price, unlike interruptible power.

Another benefit is that there is no additional transmission costs that will be incurred. The third benefit, as Art has already mentioned, is the reduced carrying costs of the facilities that will be borne by Manitoba consumers once the sale period is finished.

**MR. G. FILMON:** That indicates no additional transmission costs will be incurred, but the sale commits a portion of the existing transmission line capacity, some 500 megawatts out of, if I'm not mistaken - is it 1,000 megawatts capacity that line has from the Nelson River down south?

**MR. P. THOMPSON:** The NSP 500-kV line has approximately 1,000 megawatts of capability. It's true that, with the sale, 500 will be used to make the sale. So now there are only 500 remaining that can be used for interruptible exports. The net cost or the net reduction in interruptible exports of 66 million that form part of that 321 million we're familiar with had that factor incorporated into it.

**MR. G. FILMON:** I'm not referring to the NSP export connection. I'm referring to the connection between

the Nelson River and southern Manitoba. The DC transmission line has a finite capacity, I would assume.

**MR. P. THOMPSON:** The evaluation, yes, did incorporate the effects that the transmission from the Nelson River to Winnipeg has on the ability to get our power out of the Northern system.

**MR. G. FILMON:** Does that mean that a portion of the capital costs of that installation is attributable to the NSP sale and all of the carrying charges attendant thereto?

**MR. P. THOMPSON:** As we have indicated a number of times, the evaluation that we've undertaken, which is sort of a standard engineering-type evaluation, is the difference between a sequence of development without the export and the sequence of development with the export. The reason for doing that is to capture all costs that are incurred. The 321 million does capture every cost.

**MR. G. FILMON:** It doesn't have any capital costs attributable to the sale that would be relevant to the costs of the transmission line that's in place. That transmission line, the DC transmission line, perhaps somebody could tell me what the capacity of it is in megawatts.

**MR. P. THOMPSON:** 3,400 megawatts.

**MR. G. FILMON:** Thirty-four hundred megawatts, and 500 megawatts of that capacity is being committed to NSP, but there are no capital and carrying charges being attributable to the sale.

**MR. P. THOMPSON:** There is no advancement of DC transmission required to make the sale, so there is no additional cost that anybody will bear because of the sale.

**MR. G. FILMON:** Last night, I believe the president indicated that Bi-pole Three would have to be constructed by 1997. It adds about 1,000 megawatts of capacity, I believe. It would seem to me that if there wasn't a 500-megawatt firm sale going down to NSP that we would have that 500 megawatts still available to us from the other existing DC transmission line. So we wouldn't need as soon as 1997 to build the Bi-pole Three.

**MR. P. THOMPSON:** The 1997 date that Mr. Arnason mentioned was the date that we would be planning to put Bi-pole Three in without the NSP sale. With the NSP sale, it will remain at 1997.

**MR. G. FILMON:** Mr. Chairman, it seems to me that 500 megawatts of capacity is resulting in certain energy transmission through some line. If you're transmitting it to NSP or you're not transmitting it to NSP, then it certainly should make a difference as to when the Bi-pole Three is required.

**MR. P. THOMPSON:** The terms of the NSP agreement, which I think everybody has, indicates that, in the event

of problems on the DC facilities, we will be able to cut back the 500 megawatts. Those terms are written in there specifically to enable us to not have to advance any DC transmission from the Nelson River to Winnipeg to make the sale.

**MR. G. FILMON:** What portion of the costs of the DC transmission facilities are attributable to the NSP sale?

**MR. P. THOMPSON:** There are no additional costs from the DC facilities to make the NSP sale.

**MR. G. FILMON:** I didn't talk about additional costs. I'm talking about apportionment of existing facilities, because obviously the electricity is being transmitted along a transmission line. That has a certain value to it.

**MR. C. KANG:** Mr. Chairman, if I understand the question correctly, I think there is perhaps a misunderstanding. There are two general methods of evaluating the costs. One can consider average costs, and the difference in average cost to the system with and without the sale, in which case it would be relevant to consider a portioning of some of the existing system costs to the NSP sale.

One can take another method and talk about the additional costs, which incidentally are higher than the cost that would be allocated to NSP, as a result of calculating the incremental costs of having to make the sale, would be higher than the cost that would result if one tried to allocate a portion of the average cost.

**MR. M. ELIESEN:** Mr. Chairman, I believe, given the line of questioning, we are going to be hitting the exact area which I have in front of me and we will be able to deal with it very explicitly. Maybe Mr. Brennan could complete his presentation.

**MR. B. BRENNAN:** This graph shows the accumulative effects on Manitoba Hydro's revenue requirements with the sale. As indicated in the previous graph, there is a brief period at the outset of the contract when revenue requirements from general consumers will be somewhat higher. Following this period, and that's in the 1992-93 period, the accumulative requirement is considerably lower for each year thereafter.

As I mentioned previously, the higher revenue requirement to 1994 is due to the earlier incurrence of capital costs associated with the advancement of Limestone from 1992 to 1991. As you can see, this is quickly compensated for by the end of the contract period when accumulated benefits are extremely high.

Benefits continue to accrue beyond the expiry of the contract because of the lower carrying costs associated with the advancement of Limestone, Wuskwatim and Conawapa. This is a comparison of the capital expenditures year-by-year and you can see that the advancement of Limestone, from a first power in-service date of November 1992, to November 1991, will require higher capital expenditures in the early years.

Higher capital expenditures are also required with the earlier construction at Wuskwatim and Conawapa. Beyond 2004, 2005, capital expenditures are identical

under both scenarios. From 1998 on, capital expenditures are less under the sale case.

**MR. M. ELIESEN:** Mr. Chairman, at this particular time, I'd like to perhaps have distributed some background information related to the cost and revenue of the sale. This relates specifically to a number of questions that have been raised at the committee meeting, particularly Thursday evening. We thought it may be helpful to committee members to go through again the methodology that has been utilized in evaluating this particular sale, directly with the suggestion being put forward at the committee meeting, on an alternative methodology. That alternative methodology, in our view, is inappropriate since it understates the costs to Manitoba as a result of making a sale.

If I can just take committee members through the example, and I'll pose it as a question. It has been stated that total revenues from the Northern State Power sale are \$3.2 billion and profits \$1.7 billion. The sale requires the earlier construction of Limestone at a cost of \$3 billion. Suppose the sale requires about half the output from Limestone and that the annual carrying charges associated with financing Limestone are 14 percent, then \$3 billion times one-half, times the 14 percent, equal \$210 million a year, and for the 12-year sale term, the total carrying charges are \$210 million, times 12, which would be equal to \$2.52 billion. The question is further posed, when compared to revenues of \$3.2 billion profits, it would seem to be \$680 million, not the \$1.7 billion that has been referred to. Where does the estimated profit of \$1.7 billion come from?

Okay, our overall answer in the context of this particular question, would be to attempt to answer it in the following way. Unlike the Western Inter-tie proposal, the NSP sale is not a sale of a dedicated plant or even half a plant. It is a sale of 500 megawatts of firm power from the Manitoba system. The proper method of evaluating the costs of making the sale is to compare the costs of developing the Manitoba Hydro system with the sale, that is the sale case, and without the sale base case. The difference is the cost of making the sale.

The NSP sale requires advancing the Limestone in-service date by one year and the Conawapa and Wuskwatim in-service dates by four years. The costs associated with these advancements, capital, operation and maintenance and the reduction of interruptible sales are the costs of making the NSP sale. These costs have been estimated to be \$321 million when discounted back to 1984, taking into account both inflation and the time value of money or \$1.5 billion in as-spent dollars. The cost of making the sale are not half the cost of Limestone.

However, if one were to evaluate the costs of the sale, as the costs of dedicating a proportion of Limestone for the 12-year period, the proper calculation would be the following: you would have Limestone costs with a 1991 in-service date which would be \$2.8 billion. The proportion of Limestone's output sold to NSP, 3,285 gigawatt hours over 6,228 gigawatt hours, equal almost one-half or 0.53. The cost of NSP's share of Limestone then would be \$1.48 billion. The carrying costs, 13 percent equal 11 percent interest, plus the

1.5 percent depreciation, plus .5 percent operation and maintenance, would be on an annual basis of \$190 million. The carrying costs over the 12 years then would be \$2.31 billion. Therefore, we would have revenues minus the carrying costs, which would be \$3.2 billion, minus \$2.31 billion, or about \$890 million profit.

However, this excess of revenues over carrying costs is not the total profit from the sale. The value of the Limestone output Manitoba is getting back from NSP at the end of the sale, which will have appreciated by amount, the escalation rate has to be added.

So, we have the cost of NSP share of Limestone at the beginning of the sale, which has been referred to, 1.48 billion, and now the value of NSP share of Limestone at the end of the sale at 7 percent escalation, which is 1.4 billion after twelve years, equals \$3.33 billion. The remaining life of Limestone is equal to 55 years over 66 years, times \$3.33 billion, equal \$2.73 billion. The Manitoba capital gain is \$2.73 billion, minus \$1.48 billion, equal \$1.84 billion.

Using this kind of methodology then, the profits would be the \$890 million that we referred to, .89 billion, plus the capital gain at the end of the sale, \$1.84 billion, which would be equal to \$2.73 billion in profits. We believe though this methodology is inappropriate to use in evaluating the cost of Manitoba of making the sale since it is utilizing solely the cost of Limestone. Utilizing this methodology understates other costs to Manitoba. The method used by the Manitoba Energy Authority and Manitoba Hydro takes into account the fact that by making the sale Manitoba will have to advance in not just Limestone but other facilities as well. This has been pointed out in the graphs presented to the committee.

Trying to make an analogy to what we've just described is the question of a homeowner. Consider the situation of a homeowner. Suppose a person purchased a house, and the house would be NSP's share of Limestone for \$100,000, and obtains a mortgage for its entire cost at 11 percent, he or she estimates their carrying charges at 11 percent interest, 1.5 percent depreciation, .5 percent maintenance, for a total of 13 percent or \$13,000 a year and inflation at 7 percent. Someone comes to him or her and offers to lease the house for a 12-year period, but not at its carrying costs, but at - and again I'm referring back to the Limestone analogy - \$3.2 billion over \$2.31 billion equals 1.39 or 139 percent of his carrying costs or \$18,070 a year. What is the profit in this particular example from leasing the house?

The homeowner's profit works in two ways. First, his lease payments exceed his carrying costs by \$18,070 minus \$13,000, his costs of capital, times 12 which is equal to \$60,840 over the 12-year lease period. Second, assuming that this house maintains its real value and therefore appreciates each year by the rate of inflation, his house will be worth \$225,000.00 That is \$100,000 at the 7 percent escalation a year for 12 years equals that \$225,000, and therefore he obtains a capital gain of \$125,000 at the end of the period. His total profit in this example is therefore \$185,840 and not just the \$60,840, which is the amount by which his lease payments exceed his carrying costs.

In summary, Mr. Chairman, we believe the methodology being utilized in evaluating this particular sale is neither new or creative but is consistent with

the practices that have been followed by most utilities evaluating similar kinds of sales and, furthermore, is consistent with the kind of evaluation that is consequently undertaken by the National Energy Board in its review in evaluation, which obviously will take place with Manitoba Hydro going before the National Energy Board for licence. Therefore we are fairly confident that the kind of methodology is consistent with that used, as I say, by other utilities and that will be utilized by the NEB in evaluating the overall benefits of this particular sale.

**MR. G. FILMON:** Mr. Chairman, I just want to point out that utilizing that particular method of analysis, you would find that if you had a Hydro dam and power station that had a 66-year life, in the 65th year, by virtue of the capital appreciation that you'd attributed to it, it would now be worth hundreds of billions of dollars except that you'd have to replace it the next year. I mean it is an absolutely foolish kind of economic analysis that it becomes worth more every year, and then the year before it has to be replaced it's worth more than it's ever been in its entire existence.

**MR. M. ELIESEN:** Mr. Chairman, we believe this evaluation is consistent with, as been mentioned earlier by personnel from Manitoba Hydro, the kinds of evaluation that have been used by all utilities. Depreciation, I must say, has been included in the overall evaluation of this particular sale and has been referred to specifically in the examples I've utilized.

Maybe I can ask Mr. . . .

**MR. G. FILMON:** Mr. Chairman, he says depreciation has been included and depreciation is taken at 1.5 percent, but capital appreciation, escalation, is taken at 7 percent, so that every year it's gaining by 5.5 percent in value according to this. It keeps gaining in value until you have to replace it. It's worth more and more every year including the year before you replace it, it's worth the most it's ever been worth.

**HON. W. PARASIUKE:** I think the 67 years is used by Hydro as their amortization method. When I've asked engineers whether in fact plants have a longer life than that 67 years, everyone has said, "Yes, they have." That is the reason why, from a policy perspective, since these plants do appreciate tremendously, it was deemed to be in the public interest to make sure that the plants are still owned by the people of Manitoba into the future rather than having someone else capture an appreciated value.

I use the case of Island Falls. In the Island Falls case, this was a plant that was built 50 years ago for something in the order of \$10 million and sold by Hudson Bay Mining and Smelting, with the type of option to repurchase a year later, sold to the Saskatchewan Power Corporation for \$68.5 million. Then when the Hudson Bay Mining and Smelting tried in a sense to exercise that option, they found that the Saskatchewan Power Corporation felt that the value of the plant was more than \$68.5 million. What we've had in practice has been something that Mr. Filmon has just called stupid, but that's the reality of what has actually happened.

**MR. G. FILMON:** I did not use the word "stupid." The Minister can check the record when he has time.

**HON. W. PARASIUK:** I apologize, I think it might have been "foolish." I'll check the record to find out what it was.

**MR. G. FILMON:** Since the Minister's leader used the words "foolish visionary" when he was talking about a certain tax change that my colleague for Turtle Mountain had brought in, that resulted in tremendous investment in the oil and gas industry in Manitoba, I chose the word "foolish" because I knew the Minister would understand it.

**MR. CHAIRMAN:** Mr. Brown.

**MR. A. BROWN:** Thank you, Mr. Chairman.

I also have a little bit of difficulty in following this line of thinking into how many actual dollars over the life of the contract is that 7 percent escalation clause in there - you have \$140 billion over 12 years - but how many actual dollars of that is going to be paid into the system for Manitobans? There will be none, so it's a figure really that only establishes Manitoba Hydro's net worth, but it's not a figure which is going to contribute any money into the system. For that reason, I find it very difficult to understand that particular figure, because it does not translate into dollars.

**MR. M. ELIESEN:** Mr. Chairman, since we are dealing with a sale that starts in 1993 to 2005, a number of assumptions have had to be made with regard to the future. One set of assumptions includes the estimates on inflation and interests into the future.

We have used a certain set in our assumptions in evaluating the benefits and the costs related to the sale and we've also presented to you some sensitivity analysis of what would happen to the benefits and costs of the sale under different assumptions. Those factors on inflation and escalation work on both sides of the equation, on both the benefits as well as the costs.

If you recall earlier, when Mr. Derry had been presenting that sensitivity analysis, you can see that under various scenarios the benefits could reduce itself from the current 55 percent to 40 percent profit. This is again using the interests and inflation assumptions, or alternatively, could escalate to 60 percent. The amount of money that will be received as well as the amount of money that we will have to pay, in the context of the cost associated with the sale, all will be subject to interest and escalation.

What we've attempted to show you today that under various scenarios, notwithstanding high or low kinds of interest or escalation, the benefits of the sale are considerably more than the costs of making the sale.

**MR. A. BROWN:** I have another area of concern which Mr. Filmon already referred to; that is, there has been nothing attributed to the transmission lines. Now my understanding was that once the other transmission line is going to be built, from Nelson River down to Winnipeg or wherever, that the production from Limestone and Conawapa would be utilizing that

transmission line. I may be wrong, I don't know, but this was my understanding.

Now if we don't attribute any of the cost of Limestone to that transmission line, then the total cost of that transmission line will have to go on Conawapa, which is going to make that an extremely expensive plant to build. I wonder if Mr. Eliesen has any comment on the transmission lines?

**MR. M. ELIESEN:** Mr. Chairman, one of the main factors responsible for such a high benefit cost ratio in the context of making the sale is the fact that there are no new transmission line requirements. We currently have a 500 kV line going all the way to Minneapolis and that is a line that will be utilized with regard to making the sale between the sale period, 1993 to 2005, as Manitoba Hydro officials earlier this morning confirmed.

There are no additional transmission requirements. Later on in the sale - and here we are referring specifically to a bringing on of Conawapa earlier than would be required - the estimated date of Conawapa, the Bi-pole Three, is the same with or without the sale and therefore there are no additional transmission requirements in the Manitoba system that could be attributed to the sale.

But I want to emphasize again the reason why this particular sale to Northern States Power is so attractive is because both sides do not require any increased transmission requirements. The transmission requirements, for example, with the possible Western Power Grid were considerable and were a significant barrier in terms of an overall benefit cost ratio in that entire transaction. The fact that this sale does not have any transmission requirements is quite a benefit.

**MR. A. BROWN:** What you are saying then is that when Conawapa is going to be built, then the entire transmission line at that time will have to be attached to the price of Conawapa?

**MR. M. ELIESEN:** Mr. Chairman, that was confirmed by Manitoba Hydro officials. Bi-pole Three is required at a particular time, with or without the NSP sale.

**MR. G. FILMON:** Mr. Chairman, I'd like to ask Mr. Eliesen if he agrees with a statement I'm going to read, excerpted from a report that was done for the government with respect to Manitoba Hydro in the Seventies.

It says, "In particular, Manitoba Hydro should be forced to outline a new pricing policy that will recover average costs plus a reasonable profit from their sales to heavy industry and Northern States Power before being permitted to enter into new contracts that will require heavy expansion of existing facilities.

"On its present sales to the mining industry and NSP, Manitoba Hydro does not even recover the interests and depreciation charges. What price is new investment on this basis? You will be told a lot of things about interruptible sales, temporary surpluses, etc.

"The point that I wish to make is that a firm may be forced to do this on occasion, when it is caught with excess capacity, but it never makes investment decisions on any basis, other than the full recovery of long-run average cost, plus a reasonable profit."

It says further, "In response to the argument," and I quote, "the resource sold would be water that would be otherwise wasted. The argument is simplistic, since it neglects the requirement and commitment of other real resources, capital, labour and materials. Supply of power, not price, is the key element in economic growth. If exported, Manitoba cannot advertise its installed and potential power supplies as reasons for investing in Manitoba on a today and a long tomorrow basis."

Does he agree with all of those statements?

**MR. M. ELIESEN:** Mr. Chairman, if I can simply have a confirmation that Mr. Filmon is reading from a task force report which I co-chaired way back in the early Seventies, if that's a specific reference, then obviously I still stand by those general observations made at the time.

In fact the Royal Commission, looking into Manitoba Hydro, the Tritschler Report, I believe commended our particular task force for our overall evaluation of some of the proposals that were being brought forward at that particular time with regard to the lack of any specificity dealing with pricing.

In the early '70s we were faced with a number of proposals, since all of this is now in the public record, without any pricing patterns associated with it. The comments and observations that we made obviously internal to our political masters at that particular time is that the rate of return was a significant variable that should be looked at with regard to trying to sell a Manitoba resource outside Manitoba's borders. The reason why the NSP sale falls into the category of my remarks is because the benefit cost ratio is so significant. There is a specific pricing pattern which makes it attractive for Manitoba Hydro to consider advancing facilities or advancing a generation sequence not for its own use, but to make a sale.

Well, if it's going to do that, it should make a buck out of it. The bucks which we've tried to present before you are pretty sizable and, therefore, that is why the remarks which are contained in that task force report or the memos that went to the Premier of the Day I think respond quite favourably to the NSP arrangement.

**MR. G. FILMON:** The references to recovery of the true average costs of the sale plus something in addition, and from the evidence that we've seen at this committee, for whatever reasons, the MEA and Manitoba Hydro do not choose to ascribe any portion of the true capital costs of, for instance, the transmission facilities, or even the in-place capital facilities that accrue benefit to this such as, for instance, the Churchill Diversion, which adds a significant level of flow to that particular plant and results in a benefit that accrues to the NSP sale.

In fact, rather than deal with the costs, it's chosen instead, if you used the capital cost of Limestone in the analysis, the only way that it can be justified is to then assume an escalation rate of 7 percent which turns it around to say that, ah, ha, but it's going to be worth more in years, so you're not depreciating it and as an asset, in a normal sense, that a business would do on the books. You're not using as a depreciation; you're not carrying all of the interest costs.

Even at that, you're using an 11 percent interest rate which makes it come out marginally in favour, say, \$600 million over the course of the 20 years from now until the end of the sale, and if you plugged in and said 14 percent, then it would not have a net benefit to the people of Manitoba.

It seems to me, Mr. Chairman, that the analysis conveniently avoids the kind of thing that it would seem to me that NSP would do if they were constructing this facility for sale. They wouldn't take the escalation over the life of the contract and, say, yes, but at the end of it we've got a plant that's worth something more, they would in fact say that we have a depreciated value of such and such in the plant and that has to be paid for by the customer because that's why we're forcing that plant to be built at the present time.

That is not being done here and I don't see transmission costs included in any way, shape or form in the analysis over and above everything else in this analysis. We know those transmission costs are there. We know somebody has to pay for it; it's obviously the ratepayers, so what you're saying is the ratepayer pays for the cost of having Limestone in place, the cost of the transmission facilities, the cost of all the capital works that went into creating the system and the customer, NSP, pays only incremental costs and — (Interjection)—

**A MEMBER:** You sold the two for Alberta with the transmission . . .

**MR. G. FILMON:** They would have paid every nickel of cost to the transmission line, that's right. You got it, my friend, you go and look at that agreement.

**MR. CHAIRMAN:** Order please. Have discussion with the recognized speakers. Mr. Filmon, do you have any more comments?

**MR. G. FILMON:** Sorry, the Minister of Finance is trying to get me off track, Mr. Chairman.

**HON. W. PARASIUK:** I think there's an answer to the question that Mr. Filmon raised regarding average cost.

**MR. M. ELIESEN:** Mr. Chairman, we believe it would be inappropriate to use average system costs in evaluating the sale. Had we done so, the costs would be even lower. We are using the costs and the relevant costs of what's involved, which obviously are higher when you're bringing in Limestone or advancing Limestone and advancing other more costly facilities. Those are going to be much higher costs than your average system costs and we wanted, obviously, to attribute to the sale the real and obviously higher costs of making the sale and that's the advanced sequence generation that has to take place as a result of making the particular sale.

**MR. G. FILMON:** I'm not talking about using average system cost, Mr. Chairman, I'm talking about using the costs that are attributable to Limestone on stream that are now being assigned to the NSP sale. That's the common bus. cost plus the transmission cost plus the transmission losses, etc., etc., etc., and that's the true

cost of that sale to NSP That's because, if we didn't have that, sure, the ratepayer would be picking it up but the ratepayer is proportionately picking up a greater portion of the costs of Limestone coming on stream. It's as simple as that.

You're saying, well, we have to assume that the ratepayer would pick it up in any case, therefore NSP gets the gravy of only incremental costs of it having purchased from us and the ratepayer absorbs the so-called rate shock of that new, more expensive plant coming on stream, and whatever transmission costs, whatever else is associated with it in terms of the overall system operation and you're conveniently separating off most of the capital costs to the ratepayer and attributing very little to the NSP.

**HON. W. PARASIUK:** I see now that Mr. Filmon has drawn his conclusions with respect to the presentations that have been made regarding the sale and I waited for that because I notice that he became historical, drew from I think documents going back to 1972 or 1973 to make a point. I would like to make a particular point about what I think has happened here today and Thursday and that's that we've had, what I think, a complete reversal of Conservative policy with respect to Hydro development.

I refer people back to Hansard, Tuesday, May 11, 1982, Page 45. That was a Public Utilities Committee meeting where Hydro is making load growth projections and estimates. Mr. Lyon says, "So that is really almost the status quo type of prediction. I suppose some might call it a worse scenario prediction. Is that fair enough?"

Mr. McKean, who was with Hydro at that time said, "Well I think maybe I would answer this by saying that it's a higher load forecast than we have experienced over the last four years. I think Mr. Blachford in his comments suggested it was probably on the high side, that 3.4 percent. Now whether that's good or bad, I guess depends on how you look at it. From a rate point of view, I've got to suggest to you that a lower growth will result in the need for less new plant at higher cost and therefore, it would result in lower rates over the longer term."

Mr. Lyon's comment was, "That proposition that you have just stated is an interesting one. You're saying that the less growth we have in Manitoba, the greater the stabilization of the rates will be. Do I understand you correctly Mr. McKean?"

Mr. McKean then said, "From a rate point of view, yes sir, I have to say that in fact, but I'm not unaware of the fact that it is probably not good for the construction industry or any other aspects that go with building . . ."

At that stage, Mr. Lyon interjected by saying, "Or the province." It's on page 45.

On page 48 of Hansard indicates and Mr. Lyon says, "So then, Mr. Chairman, the proposition of low load growth having the effect of stabilizing rates because of the costs of new construction is something, while admittedly true, is not the aim, the ideal, the objective of Manitoba Hydro or should it be of the Government of Manitoba."

Mr. Blachford says, "As far as Manitoba Hydro is concerned, it certainly is recognized it is not the total objective."

Mr. Lyon then says, "Well unless things have changed in six months, Mr. Chairman, I would say to Mr. Blachford, in all honesty, was it ever the object of Manitoba Hydro to have low - not to go out seeking customers for Manitoba Hydro? Not to my knowledge under any administration." That's the quotes from Mr. Lyon back on May 11, 1982.

Then we have Mr. Filmon saying on Thursday, June 21, 1984, on page 78, "I guess what I am curious about is why the projection of system requirement by Hydro doesn't include any suggestion that diversity exchange or short-term capacity purchases might forestall the need for the next generating station or short-term energy purchases over a period of a year or two, would again forestall that construction by a year or two, thereby saving us some several hundred million dollars a year in those ongoing charges, once you enter into the next plant development."

I don't see that as one of the options that have been looked at and I am saying to you that if NSP were not there, those other ones might well be looked at by Hydro. So that is the position that is being put forward now. Go out, buy power. Who are you going to buy it from? Buy it from the United States at higher cost, in order to forestall building a plant for a year or two that does appreciate, that does cost more to build? Something that might cost \$3 billion in 1993, will cost \$8 billion in the year 2005. What we're having is the new Leader of the Conservative Party saying that that's the approach that would be taken. He's raising a whole set of cost implications that I find quite interesting. I don't believe that that had been done before because I think he's trying to do his best - and he hasn't been particularly successful - at trying to paint everything at a bad light.

What's happened is that we do have the prospect of jobs. We do have the prospect of a return, a positive return, a substantial return. If you look at it in Filmon economics, it comes out to 2.73 billion. If you look at it in what we presented, it comes out to 1.7 billion. If you look at it as average system cost, it would come out higher probably. But those are the different ways in which one would look at it. We chose - this is the Hydro and MEA - chose a system at looking at system advancement.

I think if one did those types of calculations with respect to the Western Inter-tie, where one is putting up a lot of power for 35 years, what are the implications on Wuskwatim, on Conawapa, on Manasan, on all of those other plants? What were the implications on a line that would be required maybe 10 years earlier?

I don't think those things were done in the past. I give the Manitoba Energy Authority the credit and the Manitoba Hydro the credit, of taking into account those costs and trying to capture all the costs, and trying to present them to the people of Manitoba.

So I think what we have seen has been a very substantial change in approach by the Conservative opposition, one that I don't believe any party in Manitoba has had, with respect to Hydro development over the last 30 years. That, I think would probably go back D.L. Campbell era, certainly the Roblin era, certainly the Pawley era, certainly the Schreyer era and as Lyon said on Tuesday, May 11, 1982, certainly not the Lyon era, but I believed that maybe the Filmon era is a new era with respect to development, non-development buy from the United States.

Now, I would like to ask a couple of specific questions since we are coming to an end. I think it is important that all of us be entitled to ask some questions. Yesterday, there were some points raised regarding the composition of the Manitoba Energy Authority and that rang a bell. I would like to ask, whether in fact, I, as a Minister, or any Member of the Legislative Assembly - I would like to ask this of Mr. Eliesen - is eligible to sit on the Manitoba Energy Authority?

**MR. M. ELIESEN:** Mr. Chairman, we had asked our departmental solicitor from the Attorney-General's Department that particular question, whether a Member of the Legislative Assembly could sit either as chair or as a director of the Manitoba Energy Authority. The opinion that was provided was in the negative.

The reason why it was in the negative is that when The Energy Authority Act was approved, a particular section of The Legislative Assembly Act was not included, as it is included with other provincial statutes, such as The Manitoba Public Insurance Corporation Act, The Manitoba Hydro Act, The Manitoba Telephone Act, and specifically then, if an MLA became a member on the Manitoba Energy Authority, he was therefore ineligible to sit or vote in the Legislative Assembly.

The Manitoba Energy Authority Act does not contain the appropriate overriding provision, Section 13, of The Legislative Assembly Act.

**HON. W. PARASIUK:** That is the reason why we reverted back to the old form, that and other reasons, why we have people other than members of the Legislative Assembly sitting on the Manitoba Energy Authority. I believe when Mr. Craik sat on the Energy Authority, he did so in contravention of the legislation and indeed could have been declared ineligible as a member of the Legislature.

We certainly wouldn't want that to happen to anyone in the future and I think it's important to be brought to the public attention.

**MR. G. FILMON:** Mr. Chairman, I'm glad that the Minister has had the time to research that, because he obviously didn't know that at the time.

Mr. Chairman, in response to what the Minister has said, I take great exception to his suggestion that we ought not to be questioning all of the various alternatives that Manitoba Hydro investigated. That may have been the way he saw his role when he was a critic or in opposition, that one should just simply take all of the things for granted from Manitoba Hydro and assume that they know everything and they're all powerful and omnipotent.

Mr. Chairman, we would like to know that all the various scenarios have been investigated. We would like to know that all the various questions have been asked. We would like to be able to present, as far as we see them, all the various alternatives to Manitoba Hydro.

Now the Minister seems to take great exception to that, because he wants everybody to believe that they have all the answers and all the information and that nobody dare question what they say. Mr. Chairman, as somebody who's interested in the future of Manitoba Hydro for the benefit of all of the people of Manitoba

and in the future of Manitoba Hydro for its potential to the economic development of this province, I would like to believe that Manitoba Hydro has indeed looked at all the scenarios and all the options; and I'm sorry that if he, as Minister, would like to cut off this discussion, would like to prevent us from asking these questions and would like us instead to put our heads in the sand and totally ignore this and just rubber stamp whatever he's put forward because I believe that there are valid questions to be asked.

He makes some very simplistic analyses about the fact that if you build Limestone in 1993 it costs 3 billion, but if you didn't build it until 2005 it would be 8 billion and he says, there, you have it. It would cost you 5 billion more in that time spread. The fact of the matter is though, it would have cost you 7 billion more in interest over that time spread so you'd be a net loser by 2 billion, unless you had other factors in it, so you've got to take into account all those other factors. But that is something obviously that he doesn't understand or chooses to ignore. That's okay with me if he wants to ignore that but the people of Manitoba ought not to pay the penalty of 2 billion for his ignorance.

Mr. Chairman, he has indicated that under my scenario the net benefit of the NSP sale would actually be greater than the 1.7 billion being put forward by the New Democratic Government, that in fact it would be 2.7 billion according to their calculation of my scenario. Well that is only if you take into account that you're going to now ascribe an escalated value to that over the period of the 12 years and you're going to take capital appreciation on top of it, but that also still ignores having to assign any value to the installed transmission facilities or the costs of transmission. It doesn't ascribe to it any capital value of any other aspects of the system to go to that sale or anything other than what's direct; and that is based on an 11 percent interest rate, Mr. Chairman, when his own Minister of Finance indicated not too long ago that the long-term borrowing rate was closer to 14 percent for Manitoba and if you took that into account, Mr. Chairman, — (Interjection) — the Minister of Finance says that is a lie so I'll give him an opportunity to clarify just exactly what he said.

We'll read from Hansard to him his comments later, but I would say that even if the Minister of Finance — (Interjection) —

**HON. W. PARASIUK:** You keep doing that. You can't get your facts right.

**MR. G. FILMON:** Mr. Chairman, it's on the record. I don't have to get facts right. This Minister was asked what the long-term borrowing rate for North American finance would be for 15-year money and he said it would be around 14 percent, Mr. Chairman. That's exactly what he said. We're looking at long-term borrowing to finance Limestone or any other facilities, so he says it's closer to 14 for that kind of investment.

Mr. Chairman, I wouldn't just take his word for it. I would ask what other people in the money markets think and many of them are predicting finance rates on a long-term borrowing basis that are closer to that number than they are to the 11 percent number or 10 percent, whichever it was that Hydro used on it in order

to arrive at this figure; so if you take into account the best of all those assumptions and give yourself the benefit of the doubt, then you arrive at the fact that this may in fact provide a net benefit to the consumer of Manitoba.

But if you take into account the possibility that it may be 14 percent rather than 11 percent, if you start attempting to attribute some of the capital installed costs that are in the Hydro system to this sale, because indeed they ought to be, the transmission costs, the transmission facilities and the relevant portion of the plant and so on and so forth, then you find that there isn't any \$1.7 billion profit and there may be some net benefit but it may be almost a break-even proposition.

I wouldn't be in opposition to that, Mr. Chairman. I'll tell you that if this were proven to be a break-even to the ratepayer of Manitoba, to the taxpayer of Manitoba and in fact also contributed the jobs, the development in the economy and so on, then I would say that's an acceptable deal; but I wouldn't try and persuade people by using what I consider to be inappropriate analyses in order to arrive at a paper profit of \$1.7 billion that bears no relationship to reality.

**HON. W. PARASIUK:** I would just point out again just to clarify the facts because sometimes people don't look at them carefully.

There was a sensitivity paper handed out, a sensitivity to interest and escalation rates which indicate that if you took Mr. Filmon's level of 14 percent, you have a percentage of revenues, profit as a percentage of revenues as 52 percent which is still more than a 2:1 benefit cost ratio, using 14 percent. That's not the figures that are used. There's a shift that takes place there and that has been presented consistently now over three days. I think the material is there and Mr. Filmon can draw his conclusions on it but the material certainly has shown otherwise.

**MR. CHAIRMAN:** Mr. Ransom.

**MR. B. RANSOM:** Mr. Chairman, there was a remarkable piece of information tabled just a little while ago which purports to show that Manitoba would get a capital gain on Limestone after the termination of the sale to NSP. Can I ask, Mr. Chairman, who is the author of this remarkable piece of paper? Is it the Manitoba Energy Authority or is it Manitoba Hydro?

**MR. M. ELIEN:** Mr. Chairman, the Manitoba Energy Authority takes full responsibility for that particular analysis. It was presented in the hope that it would provide some additional clarification to the questions that have been asked the previous two meetings. An alternative methodology had been suggested to the one which had been utilized by Manitoba Hydro with regard to the evaluation of the proposed sale.

We tried to work through the suggestions that were made at the committee hearings, that if you used an alternative methodology, the initial suggestion was that the profits, although they would be considerable, whether it's six or seven or \$800 million, would not be \$1.7 billion. In the example that we brought forward we attempted, for clarification purposes, to show that there was a particular area which was excluded in the

line of questioning and we had hoped at least that example would shed a little light and we tossed in a further analogy in the context of the house sale.

I guess that's all I can say with regard to that particular analysis.

**MR. B. RANSOM:** Mr. Chairman, I just say that I'm pleased to have that answer because I was extremely concerned that this type of nonsense might be coming from Manitoba Hydro and so it is somewhat of a reassurance to me to know that it's coming from the Manitoba Energy Authority and not from Manitoba Hydro.

**MR. CHAIRMAN:** Are there any further questions? Mr. Enns.

**MR. H. ENNS:** Mr. Chairman, obviously the concern of the opposition rests on the very massive investment decisions that are being contemplated and urged upon Manitoba Hydro by the government and the Manitoba Energy Authority in proceeding with the next stage of development on the Nelson River.

I ask this question to the members of Manitoba Hydro and I ask it in a general sense. Was this not avoidable - some of the concerns that are being expressed by my leader, Mr. Filmon, by others with respect to the long-term potential exposure that Manitoba ratepayers, Manitoba taxpayers have in entering into these kind of massive investment programs - was there not a considerable more degree of protection built into the proposals that were before Manitoba Hydro some years ago when outside funding was being sought and indeed found for the resumption of construction on the Nelson?

I'm referring specifically to the difference between the Alcan proposal as to the current proposal of which we have little or no details, but we do know some of the base facts that called for private sector contribution of upwards to 40 or 50 percent of the costs related to Limestone as indeed there were the contributions of sister provinces in the Western Inter-tie proposal. The arguments may be put forth that the rates of return may or may not have been acceptable to this government or to this Minister, but I'm asking a specific question about assembling the pool of capital required to advance construction on the next plant on the Nelson and my question to Hydro officials, Mr. Arnason or anybody else, would, under those circumstances, not some of these concerns have been resolved at least to the extent that they would not have impacted, would not have had the potential of impact on Manitoba rate users, ratepayers, or Manitoba taxpayers generally?

**MR. J. ARNASON:** Mr. Chairman, the word exposure was used. Using the criteria that Manitoba Energy Authority used in making their analysis and with the information that Mr. Brennan presented, we're trying to show what that meant to the customer of Manitoba Hydro and from that graph it's very obvious that over the terms of the sale period and well beyond the sale period, there will substantial benefits to the customers of Manitoba Hydro so I don't see any great concern about exposure. I think the benefits are there and the information presented certainly shows a very high net benefit to our customers.



**MR. H. ENNS:** Let me ask just a simple straightforward question.

If Manitoba Hydro found themselves in a position to have an outside source of financing to provide them up-front money for half the cost of the \$3 billion talked about in Limestone, that's what I call reducing the exposure risk of Manitoba taxpayers. Would that not appreciably alter the set of figures currently before us?

**MR. J. ARNASON:** Mr. Chairman, to a degree that money would be available at improved rates over what the government can obtain and what it would cost the organization, then presumably that would be a benefit to the organization, but certainly going back to the experience of the original transmission installation on the Nelson River, we did at that time, as you are aware, have benefits of low cost funds from the Federal Government for a long period of time, but I think the answer to that question really should come from the people that are borrowing the money.

**MR. H. ENNS:** In a similar way, if the Provinces of Alberta and Saskatchewan were to pick up and pay for additional transmission costs associated with the next phase of construction on the Nelson, would that not alter and indeed improve Hydro's financial position?

**MR. J. ARNASON:** Mr. Chairman, relative to the NSP sale, I think the point has been made before that there are no transmission costs involved specifically with the NSP sale. The terms of the contract indicate clearly that, to the degree that we have problems on the system, then the amount of the sale can be reduced to take care of that kind of eventuality, but there's no specific additional transmission required because of the sale itself.

**MR. M. ELIESEN:** Mr. Chairman, it may be useful just to add an additional note that subject matter the fact that other people are prepared to put up the financing costs of any transmission or actual generation is not in itself a positive benefit. I think we only have to look at the Churchill Falls, Quebec situation where Newfoundland got Quebec Hydro to put up all the financing for the plant on the Churchill and have ended up to be significantly losers because of the terms under which that money came forward and is certainly, in today's terms, very unattractive.

**MR. H. ENNS:** Mr. Chairman, I move, simply to put on the record, partly because of the Minister's response to my Leader, that it continues to be and has always been the policy of the Conservative Opposition to maximize our opportunities in our resource development, particularly our Hydro resources. I suppose the difference lies in our recognition of the impact that these major, massive investment decisions can have on Manitoba taxpayers. Those of us that were around during the mid '70s experienced and had to explain to our constituents what I tend to describe as an intolerable rate increase of some 150 percent in Hydro rates to Manitoba users in a relatively short period of years, some four or five years, which were finally found necessary to be stabilized by the introduction of a rate freeze, nonetheless are just as

anxious to see the development of that resource proceed.

It is from that point of view that the kind of negotiations that were entered into during the period of '78,'79,'80,'81, that we worked so diligently to help offset the load, the kind of exposure that the taxpayer would have in Manitoba to these kind of developments by entering into potential agreements, whether it was with Alcan or with Western Inter-tie Grid, that would assist us in putting together the pools of capital necessary for these kind of developments.

I haven't seen anything at these hearings today that gives me any assurance or the taxpayers of Manitoba, more specifically the Manitoba Hydro users, that they are not in for an annual unacceptable increase in hydro costs and of the scale that we experienced in the mid-'70s that in the long term can be justified in terms of the return that these export sales are earning us. I don't believe that Mr. Eliesen has answered fully the very sharp comments and critics that he put on the record in 1973 when he agreed with Mr. Kierans, for instance, that no further investments of this kind should be entered into unless full recovery, plus profit, are guaranteed.

**MR. G. FILMON:** Mr. Chairman, I just wanted to ask the president of Manitoba Hydro, he said that he didn't see that there was any exposure in this agreement for the ratepayers of Manitoba, but does not believe that it's an exposure if interest rates were to, for instance, go up to 14 percent instead of the 11 percent that was assumed for the analysis?

**MR. J. ARNASON:** Mr. Chairman, I believe the committee was shown sensitivity analysis on a number of issues, and that is the kind of exposure that we have analyzed and we believe that recognizing that kind of exposure is still an excellent deal and will be beneficial to the ratepayers of Manitoba Hydro.

**MR. G. FILMON:** Mr. Chairman, the statement was made by the Minister and the Minister of Finance that the interest rates would go up for Sherco too. But I point out that Sherco is to be completed on or before 1988, financing would be in place in terms of available capital and rates at the present time, and the only way in which it would be built in would be based on the escalating factor, but the escalating factors that are being used on the assumptions and analysis lag the interest rates by 5 or 6 percent. In fact, I guess for one year, by 7 percent. So, although our interest rates may be multiplying very very quickly, the escalation rates may be going up at only half that rate. So, in fact, we are building installed capacity based on a rate that isn't necessarily totally parallel to the changing interest rates that we have to absorb. So there is an exposure there that is an exposure to the ratepayers of Manitoba.

**HON. W. PARASIUK:** Well, I just wanted to point out that there are the capital charges built into the revenue requirements that Sherco requires. Those, I think, are done on an annual basis, and that sensitivity analysis was done and that is the difference between capital costs and capital charges. Those have been indicated

over and over again. I think that Mr. Filmon doesn't appreciate the difference between capital costs and capital charges.

**MR. M. ELIESEN:** Mr. Chairman, those have all been included. In fact, there is a five-year moving average specifically related to Mr. Filmon's observation. The fact that the sale doesn't start until 1993 and Sherco 3 doesn't come into operation until '88, but the escalation does take place. Perhaps I can ask Mr. Thompson of Manitoba Hydro to provide more details.

**MR. P. THOMPSON:** Yes, I think we discussed this briefly on Thursday evening and we pointed out that the Sherco costs that will be incorporated in the formula incorporate the interest through the levelized annual revenue requirement and it continues throughout the whole contract, it's not fixed in 1993. If there in fact is high interest during even the latter years of the contract, the levelized annual revenue requirement would result in us getting some of that through the price.

**MR. G. FILMON:** Mr. Thompson said "some of that," does that mean all of it?

**MR. P. THOMPSON:** There is a moving average, so it sort of gradually comes into effect.

**MR. G. FILMON:** We're not guaranteed that if our interest costs go up substantially as a result of a rise in interest rates that we're going to get it all back out of the existing contract.

**MR. P. THOMPSON:** What I'm saying is it is incorporated into the formula and we did provide the sensitivity evaluation of what would happen if that did come about.

**MR. G. FILMON:** Surely the revenues are based on their costs at Sherco and the expenses are based on our cost of borrowing to build Limestone.

**MR. P. THOMPSON:** I guess we also have to remember that Limestone, if we had for example the 14 percent rate of interest during the period that Limestone was built, it's only a one-year advancement of Limestone. So we in fact would be exposed to that higher rate of interest even if we go ahead with the 1992 in-service.

**MR. G. FILMON:** So it all gets back to the fact that we're not attributing the capital costs of Limestone or transmission facilities or everything else. That's the different analysis.

**MR. M. ELIESEN:** Mr. Chairman, to make it quite clear, we are attributing the cost of Limestone for that one year, but the greater part of the costs relate to the advancement associated with Wuskwatim and Conawapa, plus additional costs related to the operation and maintenance, plus additional costs related to the loss of export markets.

**MR. G. FILMON:** I'll just get back then to the point that we were talking about on Thursday evening and

that is the common bus. energy rate from Limestone. Based on use of 10 percent interest rate, I believe that the figure with transmission losses, not with transmission costs, was up about 5.4 cents per kilowatt hour. Is that correct?

**MR. A. DERRY:** That's correct.

**MR. G. FILMON:** Mr. Derry got that same figure, the common bus. rate for Limestone's production of energy for 14 percent interest rate?

**MR. A. DERRY:** I don't have it right now.

**MR. G. FILMON:** Okay. Why is there no transmission costs added into that rate?

**MR. A. DERRY:** As we've tried to explain for the Thursday night and yesterday, the analysis is the difference between two sequences. That's the cost to make the sale. Everything that is required between the base and the sale sequence is in there. The comparison that you're making against Limestone is not really a valid comparison. We're happy with our comparison where we look at two sequences, but if you want to try and tie it back to an average cost of Limestone, I've given you those numbers, that's all.

**MR. G. FILMON:** Mr. Derry has given me the numbers for the average cost of production of energy from Limestone at 5.4 mills based on 10 percent interest rates, 1.5 percent recapture of capital and another .5 percent for operation, maintenance and so on. I believe that that doesn't include overhead and I believe that that doesn't include transmission costs. It does include transmission losses. I would like to know what the analysis would be based on 14 percent interest rates and transmission and overhead costs included in that analysis.

**MR. P. THOMPSON:** You said earlier that the costs didn't appear to rise with the 14 percent interest and I believe you might have been referring to the \$321 million cost that we see under 11 and 7 which has not changed all that much to 14 and 9. It only goes to 336. I'm not sure, but I think maybe you were a little concerned that our costs didn't appear to go up very much with a higher rate of interest. I think one has to appreciate that these are discounted 1984 dollars and the actual costs during the sale would go up with the 14 percent interest, but when you have to discount it back to 1984 to make a valid comparison, you're now using 14 percent discounting and the net result is the actual costs in 1984 don't appear to be much higher.

**MR. G. FILMON:** Mr. Chairman, I'm not trying to make it appear something else. I want to know what the actual common bus. energy rate out of Limestone is because that's the next plant that's going to come on stream whether it's as a result of the need of the ratepayers, or as a result of the need of NSP, or whether it's as the result of the need of a yet-to-be discovered major energy intensive user in Manitoba. It doesn't matter to me. I want to know when that next plant comes on stream, what attributing and apportioning all of the

system costs to it, what is its actual rate of energy production that it comes on stream at? That's what I'm given to understand is called the common bus. rate and I got it for the figure of 10 percent interest on Limestone, excluding any transmission or overhead charges and I'd like to know what it would be if you assumed it at 14 percent and perhaps tried to apportion the relevant transmission and overhead charges.

**MR. P. THOMPSON:** I guess there appears to be two questions. One is; what is the average cost of power out of Limestone? The other is; what does it cost to make the sale?

**MR. G. FILMON:** Right. And I want to know what's the average cost of power out of Limestone? You've already told me 50 times what it costs to make the sale and I'm trying to get from you what is the average cost of power out of Limestone?

**MR. P. THOMPSON:** Okay. We provided figures for the average cost of power out of Limestone with 10 percent interest. We came up with 5.4 cents.

**MR. G. FILMON:** Right.

**MR. P. THOMPSON:** With the 11 we would have come up with 5.8, and that was talked about a little bit on Thursday night. I'm not sure what the number would be with 14, but it's a very simple matter to stick 14 into the numbers and come up with what it would be.

**MR. G. FILMON:** That's what I'd like, Mr. Chairman.

**MR. B. RANSOM:** Mr. Chairman, we've been asked here really to consider just two alternatives; the sale to NSP and no sale. There are not any capital costs really being ascribed to the NSP Sale. I assume the assumption is, it has to be built, therefore any sale beyond the requirement for ratepayers doesn't necessitate making a capital charge. I find that difficult to accept, but aside from that, then what are the alternatives? What could the province have done by way of attracting industry to Manitoba if you had offered power at a rate that didn't assume any capital costs, that instead of having this so-called profit of 1.7 billion, you might have had some other advantage of having an industry, an Alcan, whatever, establish in Manitoba. What kind of offer could have been made to attract development here in Manitoba if you made the assumption then that you weren't going to charge any capital cost to the power?

**MR. M. ELIESEN:** Mr. Chairman, we have ascribed capital costs to the project. Those costs are for 12 years and they relate to a sequence of capital costs related to an earlier advancement of Limestone, Wuskwatim and Conawapa. Those capital costs have been specifically mentioned and there are \$206 million discounted to 1984.

Just to complete the last part of the answer to your question; what other things could we have considered? The Manitoba Energy Authority, under the legislation passed in 1980, has mandated us to look for export sales in other jurisdictions. That's in fact what we've

been doing, particularly over the last couple of years. As members are aware, there was a significant downturn in the economy, but now there appears to be quite an increase taking place in the United States and as far as Manitoba is concerned and Manitoba Hydro in its ability to generate power and energy, we find ourselves in a very, very competitive environment. Related to that, we obviously are trying to make the best kind of bucks out of proposed sales.

The fact that we have a proposed sale here, under a contract that has been signed by both sides now, a sale which doesn't involve additional transmission requirements which poses, as members are aware, considerable problems through regulatory procedures and what-not, the benefits are considerable. We believe that in the context of what other utilities have done in the past or what the National Energy Board itself has reviewed and evaluated, they will give pretty high marks of the kind of analysis and the kind of benefit cost ratios that are associated with the sale.

**MR. CHAIRMAN:** Mr. Schroeder.

**HON. V. SCHROEDER:** A question for Mr. Arnason.

Assuming that similar conditions prevail over the next 70 years or so, as have over the last 70, would you agree with the proposition that at the end of 67 years of life of the dam, Limestone, that it would be worthless? If not, do you have any idea as to what the value of the dam would be at that time because it would be depreciating in 67 years.

**MR. B. RANSOM:** A point of order, Mr. Chairman.

In terms of procedure, Mr. Chairman, have we abandoned the idea of allowing one member to pursue a line of questioning?

**MR. CHAIRMAN:** I was under the impression that Mr. Schroeder wanted to respond rather than ask another question.

Mr. Ransom, do you have any further questions?

**MR. B. RANSOM:** Yes, Mr. Chairman. Thank you.

In response to the answer I received, first of all it seems to me then that I've been told that these other alternatives weren't looked at because the Energy Authority only has a mandate to look at export sales. The argument is still being put forward that there is some capital cost being ascribed to this sale.

Well, I wasn't here for the earlier two meetings but I've been listening carefully to this one. It certainly hasn't been demonstrated to my satisfaction that there is the cost of the capital during that 12-year period being taken into consideration that those interest costs are being charged against the ratepayers who need it to come on stream.

If that isn't the case, why did we receive this little piece of information earlier today that went half way toward showing a calculation where the interest costs on the capital were actually taken into consideration? If the Energy Authority wasn't looking at what these alternatives were, who was looking at it? What kind of offer could have been made on parallel reasoning to an industry, say, that would locate in Manitoba? That's the question that I would like to have some comment

on. Maybe it's the Minister that can offer a comment on that.

**MR. M. ELIESEN:** Mr. Chairman, I didn't want to leave the impression that the Manitoba Energy Authority has not been involved in discussions other than export sales. In my initial presentation on Thursday evening, I made reference to a number of areas, in particular our ongoing discussion with energy intensive industries of which aluminum forms a large area. As members are aware, we have signed a Letter of Understanding with the Aluminum Company of America on jointly undertaking a feasibility study to see whether the economics and related considerations are there for an effective smelter development agreement to be signed prior to March 31st, 1985.

Just to follow up the last observation made with regards to the example, the reason that we presented this example this morning is because there have been a line of questioning pursued on an alternative methodology. What we are tempting to show under this alternative methodology is that the benefits would be even higher than what we had assumed under our methodology, not withstanding the fact that both methodologies give much higher benefit cost ratios.

With respect, the economics are pretty standard and pretty firm and is consistent with the kinds of analyses that are undertaken, not by Manitoba Hydro, but by most utilities and could be easily substantiated. Quite frankly, the Manitoba Energy Authority stands by the kind of analysis that have been brought forward to the committee.

**MR. B. RANSOM:** Mr. Chairman, Mr. Eliesen returns to this calculation of a \$1.84 billion capital gain which I find absolutely incredible coming from a group that is supposed to be negotiating on behalf of the taxpayers to try and say that this would show an even larger profit to this type of sale because of an inflationary capital gain.

Now, anybody whose in business for themselves, Mr. Chairman, knows that what really counts with the dollars is what you can buy with them. If someone has put \$50,000 into a house and 15 years later finds that it's worth \$150,000 and they sell it, it doesn't mean a thing to them if everything else has gone up proportionately. To claim that they've made \$100,000 profit on that sale is absolutely ridiculous.

I find this an insult to the intelligence of the committee that this would be put forward. Some of the questions that we ask may seem to be ridiculous to the members as well, but we're trying to seek some information and to be provided with this kind of material as information, I find rather an insult to the intelligence of the committee, but we have it anyway, Mr. Chairman.

I would like to know, perhaps from the Minister then, what kind of power rates could be offered to an industry, potentially locating in Manitoba if he used the same kind of reasoning that you have used to calculate your costs for the sale to NSP? What kind of rate could be used then to offer to an industry to come to Manitoba and that instead of looking at a "profit" you would be looking at having some industry located here because we have learned in the committee, in considering Manfor for instance, that the government isn't really looking

at a return on the investment there. What they're interested in are some of the other benefits.

So what might some of the alternatives be here, that I'm sure the Minister has considered, even though the committee is now limited to two considerations, NSP or nothing?

**HON. W. PARASIUK:** We considered a whole range of options that hadn't been considered by the previous government. In fact, there were a whole set of doors closed by the previous government. I think that can easily be documented. We went to people who said that they thought we weren't interested in dealing with them.

So, we've considered a range of options with respect to export sales that we have. We have considered a range and are pursuing a whole set of energy intensive uses here. We've talked about the Trans-Canada Pipeline negotiations. We've had discussions with a whole set of energy users in Manitoba and we are hopeful that there might be some developments related to energy intensive industries over the course of the next six months. Some of these may not be large companies but, at the same time, energy is a very important aspect of their production.

We are presently having discussions with aluminum companies. We have a Letter of Understanding with one aluminum company. We have a Letter of Intent with a potash company which would again utilize energy. We've had discussions with the mining companies as well; so these options are all being canvassed in a very balanced way.

I think that on the one hand we could I guess offer the industry 67 mill power because that what's been calculated as what we will get from Northern States Power, but we think we can probably provide better cost power to firms locating in Manitoba. We can do it on a cheaper basis and we can provide some very realistic opportunities for companies to locate in Manitoba because of the fact that we will have predictably priced power.

**MR. B. RANSOM:** Mr. Chairman, excuse me, a point of order. It's 12:30 now. If the committee's going to continue on, I have some more questions.

**HON. W. PARASIUK:** I'd like to just refer back to discussions that we had with the House Leader and with the Leader of the Opposition and I'm sorry that the Member for Turtle Mountain wasn't around for two sessions.

We had indicated when we tabled the announcement that we were prepared to meet Thursday, we were prepared to meet Friday afternoon, Saturday, that first time it was tabled, June 14th. We were prepared to meet on the 15th and on the 16th. We were told, no, that the opposition wants some time to look at this material. They got the material; we gave them some material on assumptions I think on the Tuesday subsequent to that. We met on a Thursday night. We said we were prepared to meet on a Friday and a Saturday. Again, we were told by the opposition - and then we said we would be prepared to meet on a Monday morning - and we were told very clearly by the Leader of the Conservative Party, saying that a

number of our members are rural members and traditionally we haven't sat on Monday mornings, and in deference to them coming in, may I suggest that we do it Monday evening and Tuesday morning. So we accommodated the Conservative Party in that respect and he then indicated that I'm suggesting that in three working sessions, with all the information and time for consultations between sessions, which is what they asked for, we accommodated them three times, we will get it through.

Now we have someone coming in who says he didn't attend two sessions, saying that he wants to now continue on.

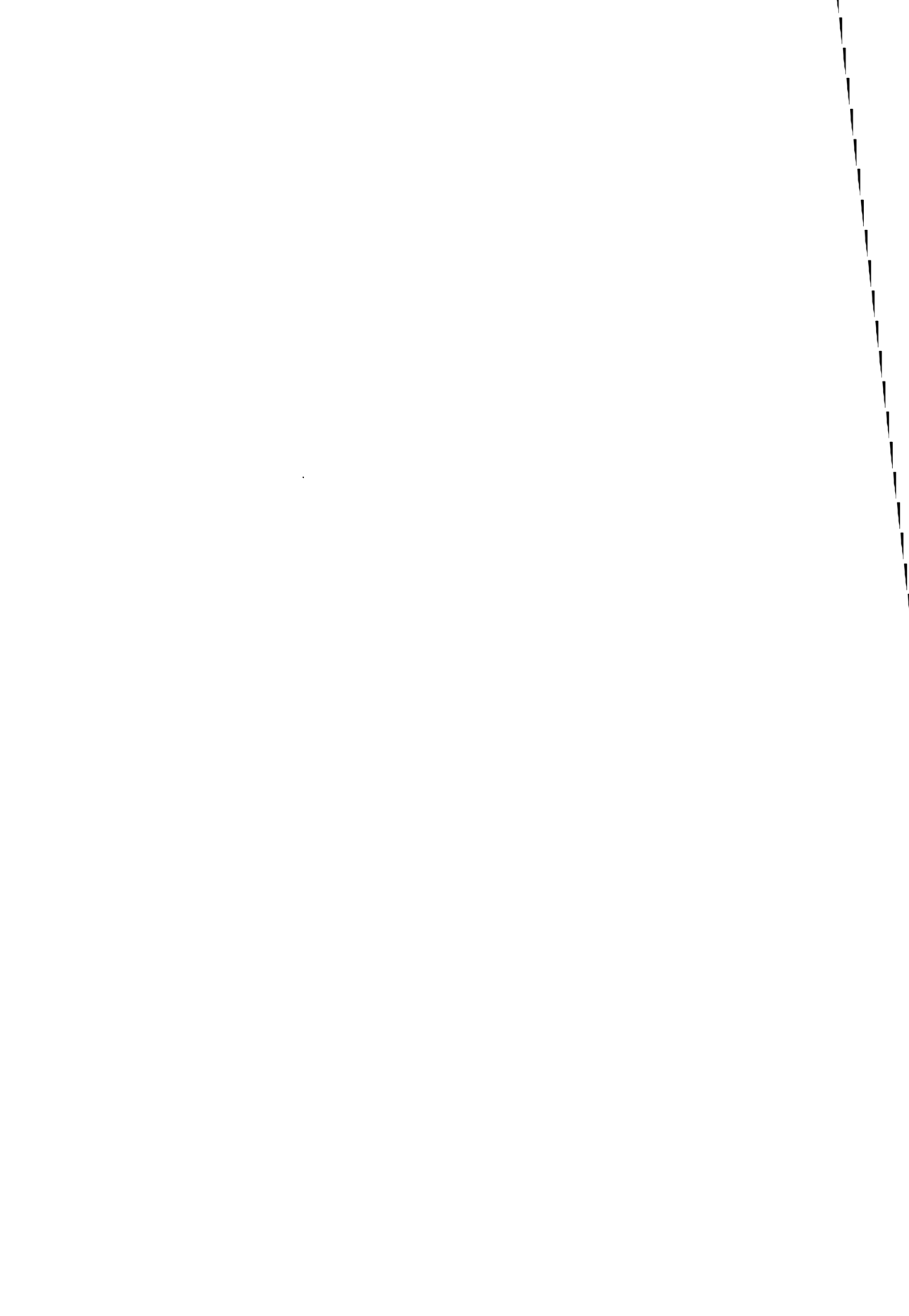
**MR. H. ENNS:** Mr. Chairman, on the point of order, and I do suggest that committee consider rising. I remind the Honourable Minister that the opposition equally accommodated the Minister and/or indeed the

staff who had some difficulty coming in, I believe, from somewhere for the Monday morning meeting. It was at the request of the government that meeting was cancelled and scheduled for the evening, which is fine. I think that's only reasonable to work that way.

The truth of the matter is that we have not concluded dealing with the Manitoba Hydro Report. There are some subject matters, understandably, that members have felt that they did not want to raise while discussing this main subject matter. I suggest to the Minister that we leave it to the Government House Leader and the Opposition House Leader to determine a further sitting of this committee.

**MR. CHAIRMAN:** Committee rise.

**COMMITTEE ROSE AT:** 12:35 p.m.



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